**NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE:\_\_\_\_\_\_\_\_ PER. \_\_\_\_**

**DNA REPLICATION REVIEW WORKSHEET**

***Completion – On the lines provided, choose the words that correcly complete the following sentences***.

1. During DNA replication, the DNA molecule \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (separates/combines) into two strands.

2. At the end of DNA replication, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (four/two) new strands of DNA have

been produced, giving a total of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (four/six) strands of DNA.

3. New DNA is replicated in strands complementary to old DNA because production of new

DNA follows the rules of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (base pairing/the double helix).



8. Circle the letter of the location of DNA in prokaryotic cells.

**a.** nucleus **b.** mitochondria **c.** cytoplasm **d.** vacuole

9. Is the following sentence true or false? Most prokaryotes contain a single, circular DNA molecule.

10. Eurkaryotic DNA is generally located in the cell \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the form of a number of chromosomes.

11. Is the following sentence true or false? All organisms have the same number of chromosomes.

12. Is the following sentence true or false? The *E. coli* chromosome is longer than the diameter of an individual *E. coli* bacterium.

13. What occurs during the process of replication? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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14. What occurs when DNA is “unzipped” \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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15. What is the complementary base sequence to TACGTT? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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16. Is the following sentence true or false? Each DNA molecule resulting from replication has one original strand and one new strand.

17. List two major roles of DNA polymerase in the process of DNA replication. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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18. What is the base pairing rule? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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19. Complete the flowchart to describe the process of DNA replication.

false